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Hospitalisations before and after the Health Care System Restructurization in Poland exemplified by the Department of Endocrinology and Radioisotope Therapy

Zmiany w leczeniu szpitalnym po wprowadzeniu nowego modelu opieki zdrowotnej w 1999 roku na przykładzie Kliniki Endokrynologii i Terapii Izotopowej (KEiTI) Wojskowego Instytutu Medycznego (WIM) w Warszawie

INTRODUCTION

Up to the mid to late nineties health facilities in Poland for most part remained under the control of the state administration, and it was not until 1997 when the first hospitals started to become autonomous units. Investment decisions were made centrally and did not take into consideration the real cost or actual demand for the service at hand. Decisions were highly political, leading to the politicisation of the health service, both in terms of funding and in management. On the 1st January 1999 the Universal Health Care Act came into force. The new health insurance system aims at providing a stable and transparent means to raise funds, through compulsory income-based health insurance premiums from the eligible population or from the state for those unable to make such contributions. The insurance premium is set at 7.5 percent of taxable income, deductible from personal income tax. The system was based on the following principles: social solidarity, self-governing, self-financing, the right to choose freely the general practitioner, equal access to services, introduction of the non-profit National Health Fund (NHF), economical and purposeful operating [1]. The aim of the study was to present the changes of hospitalisation structure in the Department of Endocrinology and Radioisotope Therapy between the first (1999) and the sixth year (2004) of the Health Care System transformation process in Poland.

METHODS

The Department of Endocrinology and Radioisotope Therapy belongs to the full-profile tertiary referral centre, 1100-bed hospital – Military Institute of Health Service. There are 25 beds in the Department including 9 beds in the separated radioisotope high-dose ward. The Thyroid Outpatient

Clinic is a part of the Department. There are 5 doctors and 11 nurses employed in the Department, also taking care of the outpatient low-dose radioiodine treatment. The patients data from the Hospital Archive were analysed. Additionally we collected the data from the patients throughput logbook. This study required no additional funding. The study did not need Ethics Committee of the Military Institute of Health Services approval. Results: the number of hospitalised patients are presented in Table 1. Over the period of five years the number of hospitalised patients increased almost 3-fold: 503 in 1999 compared to 1502 in 2004. The overall hospital statistics shows the 2.1-fold increase of inpatients. The length of stay in hospital was 3.5-fold shorter. In 1999 it was 8.4 days while in 2004 – 2.4 days. Table 2 shows the comparison between diagnosis distribution in hospitalized patients in the first and the sixth year after the health care reform in our department. There were significantly more patients in all groups except for the autonomic hyperthyreosis especially in the field of gynaecological endocrinology disorders. In 1999 the benign thyroid disorders were treated with I-131 – 275 as the inpatients and 19 as the outpatients. In 2004 the proportions were reversed: 54 were treated as the inpatients and 178 on the outpatient basis (Table 3). The number of patients with differentiated thyroid cancer treated with high doses of I-131 tripled in 5 years (47 patients in 1999 and 157 in 2004). The number of whole body scanning studies increased almost 6.5-fold: from 49 in 1999 to 318 in 2004.

DISCUSSION

The Polish Health Care System reform aroused the hope and expectations but even more worries. Only in December 1998, just before its start there were 1300 articles in Polish newspapers. More than 40% were highly critical. [2]. Over the period of 6 years the system was frequently changed and amended. The most controversial issues were connected with the degree and principles of reimbursement. The authors of the current paper are doctors and not being the financing experts tried to show what changed in the working profile of Department of Endocrinology and Radioisotope Therapy, Military Institute of Health Service during the transformation period. The number of beds and staff has not altered for 6 years. Comparing the data of 1999 and 2004 the number of hospitalised patients increased 3-fold and the length of stay in hospital decreased 3,5-fold. This enormous raise in effectiveness (apart from the staff efforts) may be explained by the contract structure. In 2004 the one-day hospitalisations were reimbursed by the NHF. It allowed the more proficient utilization of the so called: “standard hospital bed”. Comparing the diagnoses of the hospitalised patients there were significantly more gynaecological endocrinology disorders (Table 2). This can be attributed to the fact that a new specialist consultant was employed. The reversal of the proportions of patients with benign thyroid disease treated with small dose of I-131 between 1999 and 2004 can also be explained by the contract terms. National Health Fund withdrew the low-dose I-131 inpatient treatment from the contract in 2004. By the order of the Government of 24.12.2002 [3] it was established that the doses up to 800 MBq are allowed for outpatient treatment. Therefore the contract did not include the low-dose I-131 treatment (except for complicated cases). The 3-fold increase of patients number treated with high-dose I-131 (>800 MBq) may be elucidated by the fact that the licence for that therapy was given by the Chairman of the National Atomic Energy Agency only in 1999. The high dose treatment started in 1999 and gradually the number of hospitalisations rose year by year. This could explain the 6.5-fold boost of the whole body scanning studies, which are the part of standard evaluation. Based on the comparisons above we can state that at least one of the principles (mentioned in the introduction) of the National Health Insurance Act was fulfilled. The transformation of the Health Care System encouraged the economical and purposeful functioning of the Department of Endocrinology and Radioisotope Therapy.

CONCLUSION

After 6 years of operation of the new Health Care System in Poland the Department of Endocrinology and Radioisotope Therapy achieved the significant reduction in the length of hospitalisation and increase of hospitalised patients.

Table 1.Hospitalisation structure in the Department of Endocrinology and Radioisotope Therapy between the first and the sixth year of the Health Care System transformation process in Poland. The 1999 data were considered as 100%.

	in 1999	in 2004	Change in %
Number of hospitalized patients	503	1502	298,6
Mean hospitalisation duration time [days]	8,4	2,4	28,6

Table 2. Comparison between diagnosis distribution in hospitalized patients in the first and the sixth year after the health care reform in the Department of Endocrinology and Radioisotope Therapy

Diagnosis distribution in hospitalized patients	in 1999	In 2004
Autonomic hyperthyreosis	280	208
Autoimmunologic thyroid diseases	84	136
Euthyroid goiter	16	316
Thyroid cancer	60	350
Hyperparathyroidism	3	11
Hyperpituitarism	15	68
Hypopituitarism	7	28
Pituitary Incidentaloma	1	6
Cushing Syndrome	6	10
Conn Disease	2	2
Hypoadrenalism	3	7
Pheochromocytoma	0	4
Adrenal Incidentaloma	3	37
Multiendocrine Neoplasia (MEN -1)	1	6
Carcinoid Syndrome	1	9
Metabolic Syndrome	5	11
Policystic Ovary Syndrome (PCOS)	5	80
Gynecomastia	1	1
Hyperprolactinemia	0	110
Hypogonadism	0	2
Menopause associated diseases	0	20
Insulinoma	0	1
Other diseases	11	78
Total	503	1502

Table 3. Comparison between radioiodine treatment in hospitalized patients in the first and the sixth year after the health care reform in the Department of Endocrinology and Radioisotope Therapy. The 1999 data were considered as 100%

Number of radoiodine procedures	in 1999	In 2004	Change in %
^{131}I therapy for inpatients (non malignant thyroid diseases)	275	54	30.3
^{131}I therapy for outpatients (<800MBq) (non malignant thyroid diseases)	19	178	936.8
^{131}I therapy (>800MBq) for inpatients (well-differentiated thyroid cancer)	47	157	334
^{131}I (80MBq) (Whole Body Scintigraphy)	49	318	648.9
Total	390	707	181.3

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ABSTRACT

On the 1st January 1999 the Universal Health Care Act came into force. The aim of the study was to present the changes of hospitalisation structure in DERT between the first (1999) and the sixth year (2004) of the Health Care System transformation process in Poland.

Methods: The patients data from the Hospital Archive and from the patients throughput logbook were analysed. Results: The number of hospitalised patients increased almost 3-fold: 503 in 1999 compared to 1502 in 2004. The length of stay in hospital was 3.5-fold shorter. In 1999 it was 8.4 days while in 2004 – 2.4 days. In 1999 the benign thyroid disorders were treated with I-131 – 275 as the inpatients and 19 as the outpatients. In 2004 the proportions were reversed: 54 were treated as the inpatients and 178 on the outpatient basis.

Conclusion: After 6 years of operation of the new Health Care System in Poland the Department of Endocrinology and Radioisotope Therapy achieved the significant reduction in the length of hospitalisation and increase of hospitalised patients.

STRESZCZENIE

1 stycznia 1999 roku w zaczął funkcjonować w Polsce nowy model opieki zdrowotnej. Celem pracy było przedstawienie zmian jakie dokonały się pomiędzy pierwszym (1999) a szóstym (2004) rokiem działania nowego systemu opieki zdrowotnej w Polsce na przykładzie pracy KEiTI WIM w Warszawie. Metody: posłużono się danymi z archiwum szpitala oraz z ksiąg "ruchu chorych" znajdujących się w klinice. Wyniki:Porównując dane z roku 1999 i 2004, liczba chorych hospitalizowanych w klinice wzrosła niemal trzykrotnie: z 503 w 1999 roku do 1502 w roku 2004. Czas pobytu chorego w szpitalu zaś 3,5 krotnie skrócił się. W 1999 roku wynosił on średnio 8,4 dnia, gdy w 2004 roku 2,4 dnia. W 1999 roku nienowotworowe choroby tarczycy leczono małymi dawkami radiojodu (J^{131}) w warunkach hospitalizacji u 275, a w trybie ambulatoryjnym u 19 osób. W 2004 roku proporcje były odwrotne: 54 osoby leczono w trybie szpitalnym, a 178 w trybie ambulatoryjnym. Ponad trzykrotnie wzrosła liczba leczonych dużymi dawkami radiojodu z powodu zróżnicowanego raka tarczycy. W 1999 roku leczono 47, a w 2004 roku 157 takich chorych. Prawie 6,5 razy wzrosła liczba wykonanych badań scyntygraficznych całego ciała: z 49 w 1999 roku do 318 w roku 2004.Wniosek: po pięciu latach funkcjonowania nowego sytemu opieki zdrowotnej w Polsce w Klinice Endokrynologii i Terapii Izotopowej WIM uzyskano znamienne skrócenie czasu leczenia oraz zwiększenie liczby chorych leczonych w warunkach szpitalnych.